



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/652,986	08/28/2003	Shigenori Tomonaga	16869S-092800US	2985
20350 7590 12/10/2007 TOWNSEND AND TOWNSEND AND CREW, LLP TWO EMBARCADERO CENTER EIGHTH FLOOR SAN FRANCISCO, CA 94111-3834			EXAMINER SIDDIQI, MOHAMMAD A	
			ART UNIT 2154	PAPER NUMBER
			MAIL DATE 12/10/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

mm

Office Action Summary	Application No. 10/652,986	Applicant(s) TOMONAGA ET AL.	
	Examiner Mohammad A. Siddiqi	Art Unit 2154	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 September 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-5,7-9 and 11-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-5,7-9 and 11-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1, 3-5, 7-9, and 11-18 are presented for examination. Claims 16-18 are new.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

3. Claims 1, 3-5, 7-9, and 11-18 are rejected under 35 U.S.C. 102(e) as being anticipated by Yanai et al. (6,502,205) (hereinafter Yanai).

4. As per claim 1, Yanai discloses a computer-readable storage medium having a program for use in a host computer (service processor, 234, fig 4) having a function of displaying at a user interface a management

information items relating to a plurality of independent communication paths (service processor, 234, fig 4, col 12, lines 61-64) for sending data input/output requests from said host computer (service processor, 234, fig 4) to a storage device and returning results of the said data input/output requests to said host computer, said storage device (service processor, 234, fig 4) having a plurality of disk drives (223a -223d, fig 4) storing data sent from said host computer and a disk controller (214, fig 4) controlling to store data sent from said host computer to at least one logical volume corresponding to the plurality of disk drives each of said communication paths (214, fig 4) comprising a host port of said information processing device (elements of fig 1), a disk controller port of said disk controller, a communication cable connecting between said host port and said disk controller port, and a logical volume (col 15, lines 1-15) of said storage device (user interface provides configuring and monitoring capabilities are in service processor and host RM software, 214, 234, fig 4, col 12, lines 46-55), said program comprising:

code configured to monitor status (user interface provides configuring and monitoring capabilities are in service processor and host RM software, 214, 234, fig 4, col 12, lines 46-55) information for each of said communication paths and to store said status information at said host computer (213,234, fig 4, col 12, lines 54-67), said status information specifying a relationship

for each communication path between a path ID of said communication path (col 8, lines 18-37), a disk controller port ID of said disk controller (col 8, lines 18-37, 16, fig 1; SQ Link command, 24,fig 1, col 7, lines 50-67, col 47-48), and a logical volume ID of said storage device, and wherein said status information includes an access status for each communication path indicating whether said communication path is online or offline (col 8, lines 18-37, 16, fig 1; SQ Link command, 24,fig 1, col 7, lines 50-67, col 47-48);

code configured to operate a data processor (user interface provides configuring and monitoring capabilities are in service processor and host RM software, 214, 234, fig 4, col 12, lines 46-55) in the host computer to update at least one of said management information items being displayed to express the present access status of said communication path responsive to a change in the status information corresponding to said communication path, the change indicating a failure of the (col 8, lines 18-37, 16, fig 1; SQ Link command, 24,fig 1, col 7, lines 50-67, col 47-48) communication path (status access, col 8, lines 18-23; col 12, lines 56-67; col 13, lines 1-6), and/or updated information received as input through said user interface (configuring and monitoring, col 8, lines 18-23; col 12, lines 56-67; col 13, lines 1-6);

code configured to operate the data processor (user interface

provides configuring and monitoring capabilities are in service processor and host RM software, 214, 234, fig 4, col 12, lines 46-55) to display status information for said plurality of communication paths including the communication path ID of said communication path (col 8, lines 18-23; col 12, lines 56-67; col 13, lines 1-6; col 47, lines 1-6), the disk controller port ID of said disk controller port, the logical volume ID of said logical volume of said storage device, and the access status of said communication path indicating off-line or on-line (col 8, lines 18-23; col 12, lines 56-67; col 13, lines 1-6; col 47-48, see the parameters for displaying purpose); and

code configured to operate the data processor to change the displayed management information concerned with the access status of said communication path from said on-line state into said off-line state (col 32, lines 13-16; col 47-48) in which failure has occurred among displayed plurality of communication paths based on status information (col 8, lines 18-23; col 12, lines 56-67; col 13, lines 1-6; col 32, lines 1-16; col 47-48, see the parameters for displaying purpose of SQ Link command, 24, fig 1, col 7, lines 50-67, col 47-48).

5. As per claim 3, Yanai discloses in accordance with an input for updating said management information items being displayed, all of said management information items being displayed or part of said management

information items being displayed is updated to express present access status of a communication path (status access, col 8, lines 18-23; col 12, lines 56-67; col 13, lines 1-6).

6. As per claim 4, Yanai discloses part of said management information items to be updated includes at least one of an execution number of data input/output as performed between said storage device and said host computer and a number indicative of access failure occurred at said communication path in proper execution of said data input/output (status access, col 8, lines 18-23; col 47-52, messaging examples).

7. As per claim 5, the claim is rejected for the same reasons as claim 1, above.

8. As per claim 7, the claim is rejected for the same reasons as claims 5 and 3, above.

9. As per claim 8, the claim is rejected for the same reasons as claims 5 and 4, above.

10. As per claim 9, the claim is rejected for the same reasons as claim 1, above.

11. As per claim 11, the claim is rejected for the same reasons as claims 9 and 3, above.

12. As per claim 12, the claim is rejected for the same reasons as claims 9 and 4, above.

13. As per claims 13, 14 and 15, wherein said management information displayed at said user interface is changed in real time based on receiving failure information from said storage device (dynamic sparing option, col 28, lines 40-61).

16. As per claims 16, 17, and 18, Yanai discloses said host computer further comprises a graphical user interface configured to display said management information items (user interface provides configuring and monitoring capabilities are in service processor and host RM software, 214, 234, fig 4, col 12, lines 46-55), and wherein said status information is updated in response to a selection of said management information items displayed by said graphical user interface (user interface provides configuring and

monitoring capabilities are in service processor and host RM software, 214, 234, fig 4, col 12, lines 46-55; col 47-48).

Response to Arguments

14. Applicant's arguments filed 09/04/2007 have been fully considered but they are not persuasive, therefore rejections to claims 1, 3-5, 7-9, and 11 - 15 is maintained.

15. In the remarks applicants argued that:

Argument: Yanai does not disclose a function of displaying at a user interface a management information items relating to a plurality of independent communication paths.

Response: Yanai discloses a function of displaying at a user interface a management information items relating to a plurality of independent communication paths (host RM software and service processor, 213, 234, fig 4, col 12, lines 61-64; col 45-50, SQ link command, host RM software and service processor are monitoring status of communication path locally)

16. Applicant's arguments with respect to amended limitations in claims 1, 5, and 9 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

17. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

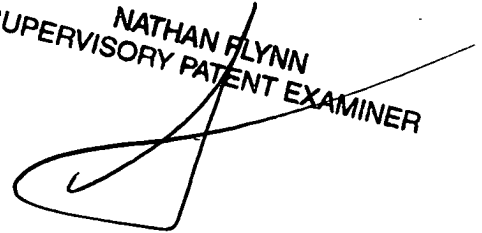
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

18. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mohammad A. Siddiqi whose telephone number is (571) 272-3976. The examiner can normally be reached on Monday -Thursday.

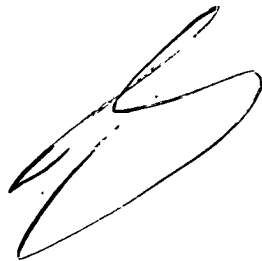
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nathan J. Flynn can be reached on (571) 272-1915. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

NATHAN FLYNN
SUPERVISORY PATENT EXAMINER

A handwritten signature in black ink, consisting of a large, stylized loop followed by a horizontal stroke.

NATHAN FLYNN
SUPERVISORY PATENT EXAMINER
SUPERVISORY PATENT EXAMINER

A handwritten signature in black ink, consisting of a large, stylized loop followed by a horizontal stroke.